

US 6,565,440 B2

Abstract of the Disclosure

The present invention provides a method and apparatus for tracking distributed statistical data retrieval in a network device. Periodically, statistical data is gathered by processes on one or more remote cards in a network device and transferred to a central process. The distributed processes register each different type of statistical data to be gathered with the central process allowing the central process to maintain an accurate inventory of distributed processes expected to send particular statistical data. Tracking statistical data gathering processes allows the central process to consistently report data while allowing each process to remain modular. In addition, tracking increases a network device's scalability. For example, new processes may be added to a network device without affecting existing processes. Moreover, tracking increases a network device's availability. For instance, tracking provides fault tolerance, such that if one statistical data gathering process fails the other statistical data gathering processes are not affected and data continues to be reported. Importantly, data not reported by a registered process may be quickly detected and, where necessary, reported to a network management system. Tracking also provides for auto de-registration, for example, when hot swapping of cards out of a network device, tracking de-registers processes as necessary.

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